

REMARKS

The application has been amended and is believed to be in condition for allowance.

Prior Art legends were added to Figures 1a-1b.

The specification was amended to add section headings.

All formal matters have been addressed.

Applicant acknowledges that the references listed cited in the PCT search report have been considered.

The previous claims have been amended. New claims are added. The new recitations find support in the original specification and are illustrated by the drawings. No new matter is entered.

Claims 1-5 were rejected as anticipated by GUTTZEIT 839,837.

Claims 1 and 4-5 were rejected as anticipated by SEIFERT 1,747,908.

None of the pending claims are anticipated.

GUTTZEIT does not disclose a rotatable bit assembly (5; 8) having a center point (6) with plural cutters (7; 9) included in said assembly and disposed at different distances from the center point. See Figure 1 showing the cutters are all at the same distance from the center.

GUTTZEIT does not disclose cutters (7; 9) disposed in relation to each other so that a subsequent cutter, seen in the

direction of rotation, will engage an edge created by the action of a preceding cutter.

GUTTZEIT does not disclose cutters disposed on the surface of said reamer, a first of said cutters disposed at a first diameter from the center point and a second of said cutters disposed at a second diameter from the center point. See in application Figures 1-3 that each cutter is set at a different diameter from the stinger 6.

GUTTZEIT does not disclose the cutters (7) mounted along one or more helical lines on the surface of the reamer (5). GUTTZEIT does disclose all the cutters at the same distance.

GUTTZEIT does not disclose that the bit assembly is comprised of a cylindrical drum (8) and cutters (9) disposed on the outer barrel surface of the drum (8). GUTTZEIT does not disclose a drum.

Similarly, GUTTZEIT does not disclose that the cutters (9) are disposed along one or more helical lines on the drum surface.

Likewise, GUTTZEIT does not disclose the features of the new claims, e.g., claim 7 wherein, the bit assembly comprises a reamer (5) having a stinger (6) at the center point, and the cutters are disposed on the surface of said reamer with each adjacent cutter being at an increasing distance from the stinger.

GUTTZEIT does not disclose the features of the new claims, e.g., claim 8 wherein, a reamer (5) configured to widen-ream a drilled hole and having an axis and an upper side; a centrally positioned stinger (6) carrying the reamer, the stinger to project into a pre-drilled pilot hole and rotate the reamer about the reamer axis for being drawn upwards against overlying rock to therewith cut rock away; and plural cutters (7) disposed on the upper side of the reamer at first and second diameters from the stinger, the cutters disposed relative to each other such that a subsequent cutter is at the first diameter and, as seen in a direction of rotation, will engage an edge formed by the cutting action of a preceding cutter at the second diameter, the second diameter being greater than the first diameter.

GUTTZEIT does not disclose with the reamer rotated anti-clockwise a first cutter that comes into engagement with an edge of a predrilled pilot hole is the preceding cutter (7a) situated at the second diameter, and as the reamer rotates and the first cutter (7a) breaks loose a rock fragment which creates a fresh break edge with which the subsequent cutter (7b) at the first diameter, comes into engagement and breaks loose a fresh fragment.

GUTTZEIT does not disclose such a reamer wherein the cutters are disposed along a helical line on the upper surface of the reamer as per claims 8-10.

SEIFERT does not disclose a rotatable bit assembly (5; 8) having a center point (6) with plural cutters (7; 9) included in said assembly and disposed at different distances from the center point. See Figure 3 showing the cutters are all at the same distance from the center.

SEIFERT does not disclose cutters (7; 9) disposed in relation to each other so that a subsequent cutter, seen in the direction of rotation, will engage an edge created by the action of a preceding cutter.

SEIFERT does not disclose cutters disposed on the surface of said reamer, a first of said cutters disposed at a first diameter from the center point and a second of said cutters disposed at a second diameter from the center point. See in application Figures 1-3 that each cutter is set at a different diameter from the stinger 6.

SEIFERT does not disclose the cutters (7) mounted along one or more helical lines on the surface of the reamer (5). SEIFERT does disclose all the cutters at the same distance (again, see Figure 3).

SEIFERT does not disclose that the bit assembly is comprised of a cylindrical drum (8) and cutters (9) disposed on the outer barrel surface of the drum (8) as recited.

SEIFERT does not disclose that the cutters (9) are disposed along one or more helical lines on the drum surface.

Likewise, SEIFERT does not disclose the features of the new claims.

Thus, neither reference anticipates.

Reconsideration and allowance of all the claims are respectfully requested.

Should there be any matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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APPENDIX:

The Appendix includes the following item(s):

- ☐ - a terminal disclaimer
- ☐ - a 37 CFR 1.132 Declaration
- ☐ - a new or amended Abstract of the Disclosure
- ☒ - a Replacement Sheet for Figures 1a and 1b of the drawings
- ☐ - a Substitute Specification and a marked-up copy of the originally-filed specification
- ☐ - a verified English translation of foreign priority document